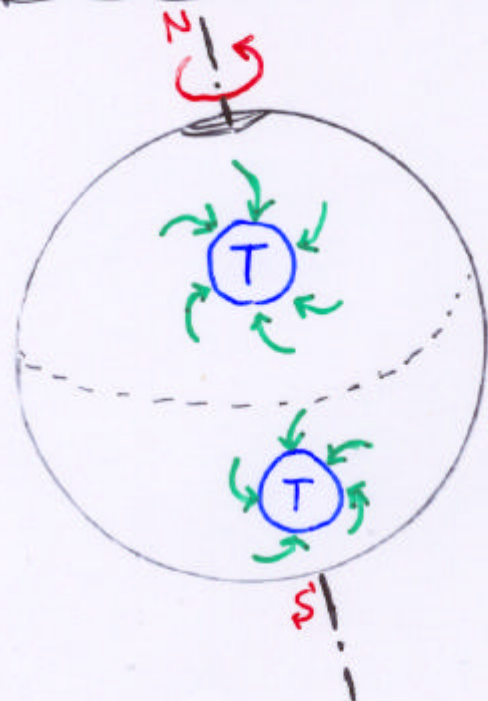
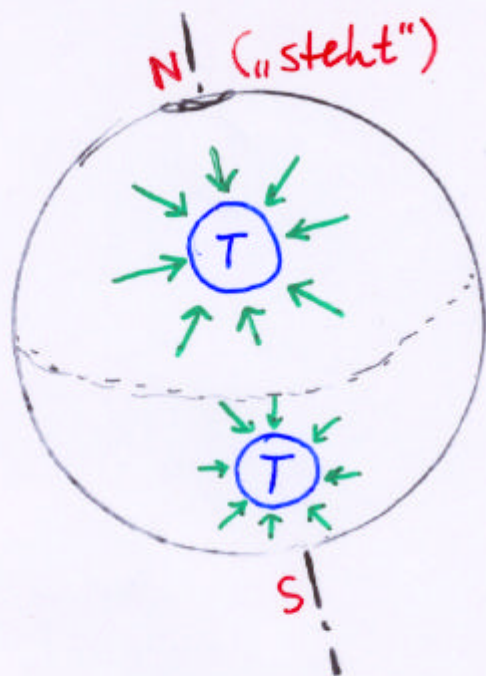


Corioliskraft wichtig für Wetter !



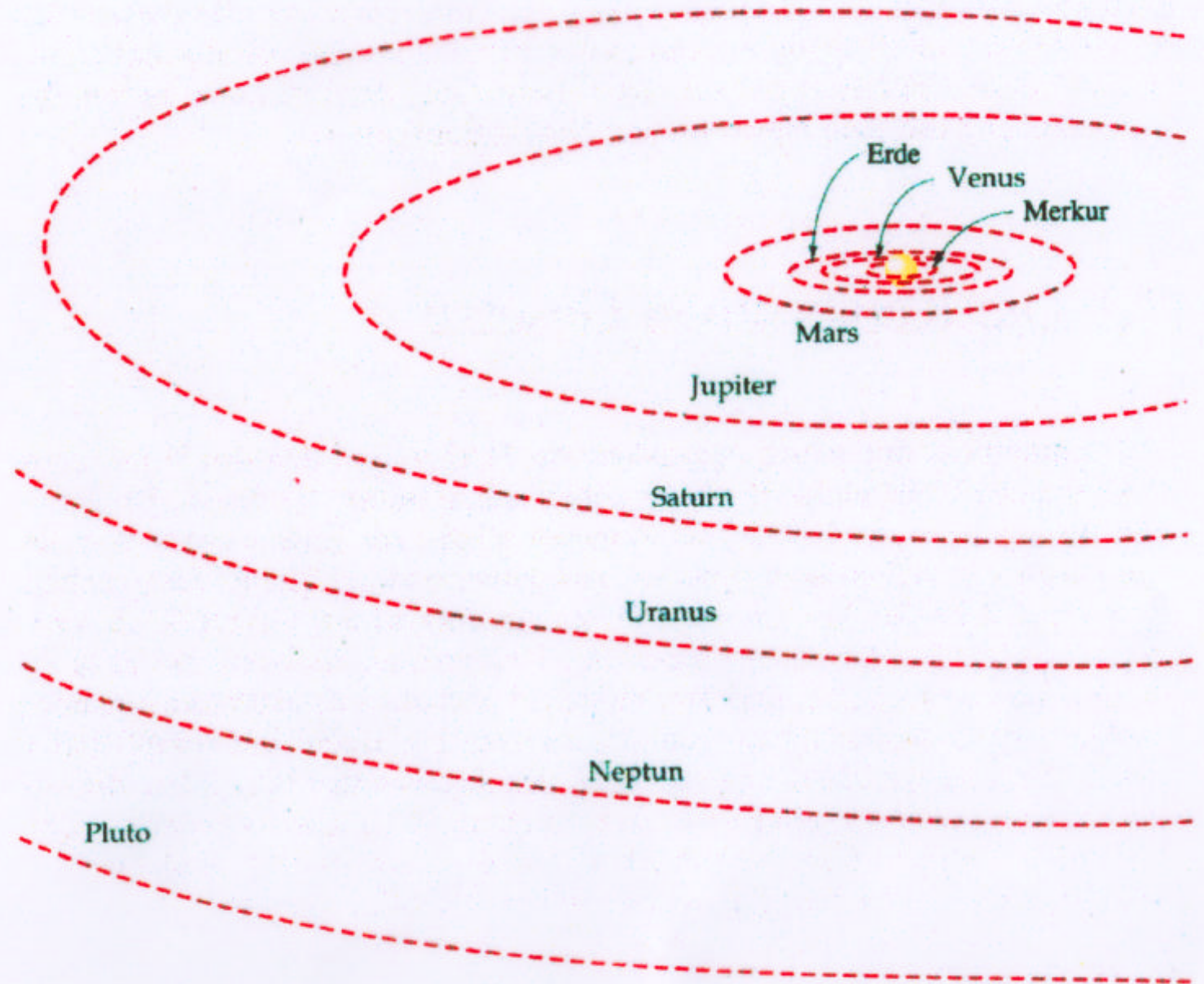


**Kopernikus**

1473-1543

**Kepler**

1571-1630





## Archimedes

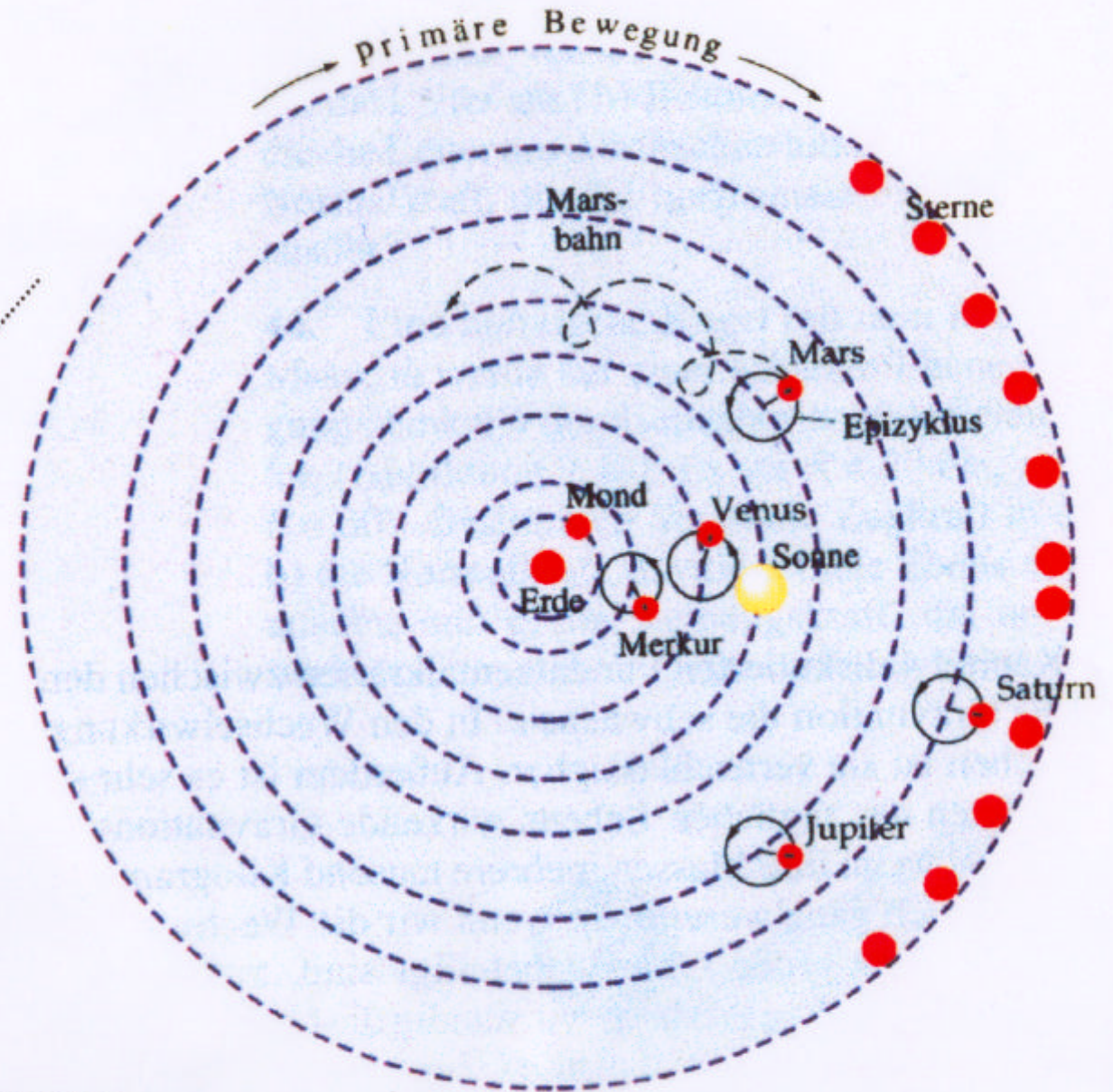
287-212 v.Chr

Problem großer  
Zahlen im  
römischen  
System...!



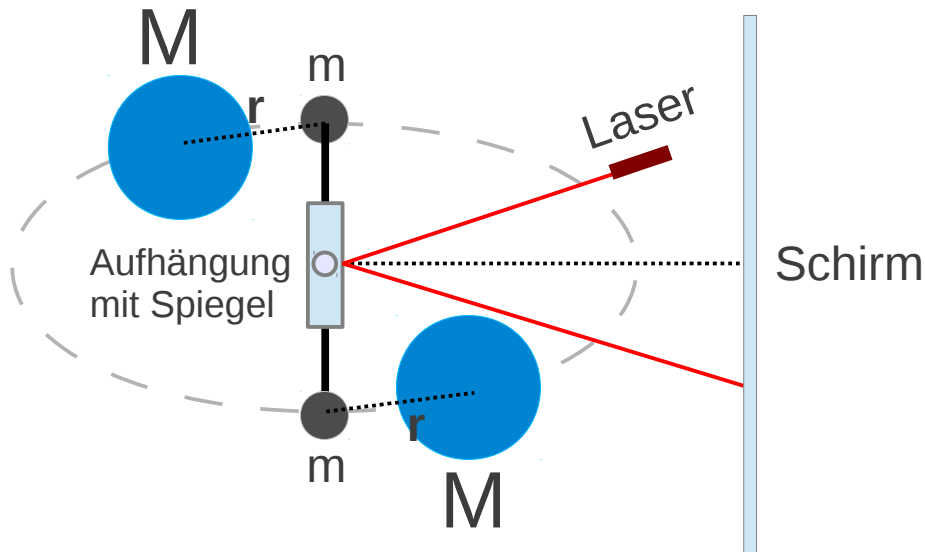
## Ptolemäus

140 n.Chr.

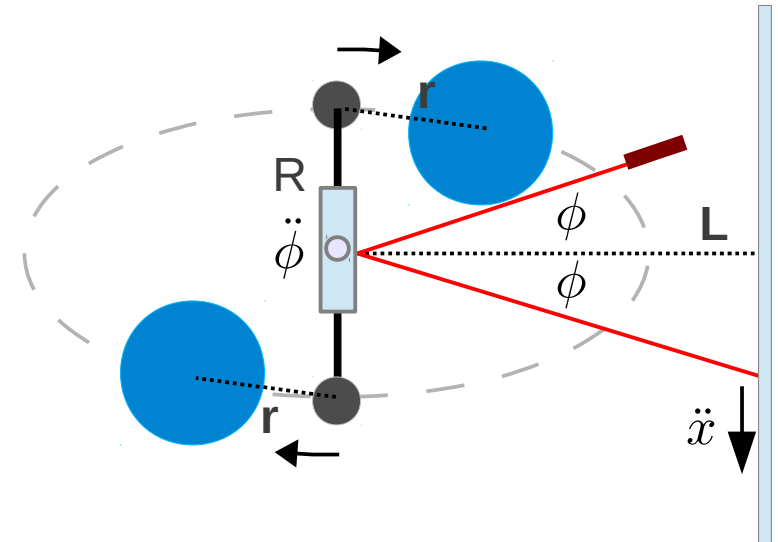


# Drehwaage

## Stellung A



## Stellung B



### Pendel in Ruhe

$$F = F_{\text{Grav}} - F_{\text{Torsion}} = 0$$

$$\Rightarrow F_{\text{Torsion}} = F_{\text{Grav}}$$

$$2mR^2\ddot{\phi} = R\frac{2M}{r^2}G$$

$$\Rightarrow G = \frac{Rr^2}{2M}\ddot{\phi}$$

$$\Leftrightarrow G = \frac{Rr^2}{2M}\frac{x}{2L} //$$

$$F = -F_{\text{Grav}} - F_{\text{Torsion}} \approx -2F_{\text{Grav}}$$

... für kleine Auslenkungen

$$\begin{aligned} \dot{L} &= M \Leftrightarrow 2\ddot{\phi} = R2F \\ 2 &= 2(mR^2) = R4F_{\text{Grav}} \end{aligned}$$

$$x = 2\phi L$$

Für die Position des Lichtzeigers ergab die Messung:

$$m_1 = 0.015\text{kg}$$

$$m_2 = 1.5\text{kg}$$

$$R = 5\text{cm}$$

$$r = 4\text{cm}$$

$$L = 14\text{m}$$

|                 |      |      |     |     |      |     |      |     |     |      |
|-----------------|------|------|-----|-----|------|-----|------|-----|-----|------|
| $t/\text{s}$    | 0    | 10   | 20  | 30  | 40   | 50  | 60   | 70  | 80  | 90   |
| $s/\text{Skt.}$ | 0    | 0.5  | 1   | 1.5 | 2    | 3   | 4.5  | 6   | 8   | 9.5  |
| $t/\text{s}$    | 100  | 110  | 120 | 130 | 140  | 150 | 160  | 170 | 180 | 190  |
| $s/\text{Skt.}$ | 11.5 | 13.5 | 16  | 18  | 20.5 | 23  | 25.5 | 28  | 30  | 32.5 |

